

Sustainable Chemistry Research and Development Act of 2019

Senators Chris Coons, Susan Collins, Shelley Moore Capito, Amy Klobuchar

Background: Modern chemistry has afforded us a life of which our predecessors could only dream. From health care to electronics to agriculture, chemistry and chemical products vastly improve almost every aspect of our lives. Sustainable chemistry is an approach to chemical innovation and production that can include activities such as reducing risk, preventing waste, increasing resource efficiency, using renewable feedstocks, and designing products and processes with consideration of the entire lifecycle. A March 2018 GAO report (GAO-18-307) outlined how sustainable chemistry can inspire new products and processes, create jobs, and enhance benefits to human health and the environment. It also identified options for addressing challenges, such as establishment of a national initiative to support sustainable chemistry research and education and the development of tools for assessing sustainable chemistry products and processes.

Need: Sustainable chemistry is an exciting field that is creating jobs, supporting economic development, and keeping U.S. companies competitive globally. However, despite strong interest in sustainable chemistry from the private sector, there are still many barriers to the continued design, development, and commercialization of sustainable chemical products and processes. This is partly due to the lack of widely recognized definitions for sustainable chemistry or methods for measuring the sustainability of a chemical product or process. In addition, there is no comprehensive approach to research and training in the sustainable chemistry field, meaning most chemists and chemical engineers graduate without exposure to sustainable chemistry training. While the federal government has existing programs that include elements of sustainable chemistry, such as the NSF Centers for Chemical Innovation Program or the USDA BioPreferred Program, there is little coordination between agencies and programs to maximize our federal investment in this area. Furthermore, while these programs support aspects of sustainable chemistry in the private sector, they lack a connected vision of how to best encourage innovation and support the sustainable chemistry enterprise.

Legislative Summary: This legislation would establish a coordinating entity under the National Science and Technology Council within the Office of Science and Technology Policy. The agencies involved in this entity will work, in consultation with qualified stakeholders, to assess the state of sustainable chemistry in the U.S. and coordinate federal efforts in sustainable chemistry. These agencies are also encouraged to include sustainable chemistry in their existing research, development, technology transfer, commercialization, education, and training programs, including support for partnerships between universities and the private sector. Finally, the legislation encourages the validation of tools for assessment of sustainable chemistry processes or products. This bill does not include any regulatory components or authorize new spending.

Support: The *Sustainable Chemistry Research and Development Act of 2019* is endorsed by the GC3 Sustainable Chemistry Alliance, the American Chemical Society, the American Chemistry Council, the American Sustainable Business Council, Ashland, BASF, Beautycounter, the Biotechnology Innovation Organization (BIO), Delaware Sustainable Chemistry Alliance, The Dow Chemical Company, DuPont, Environmental Working Group, The LEGO Group, Procter & Gamble, and the University of Delaware.